



BISON CONTROL AREA PROGRAM

ANNUAL REPORT 2016/2017 –

2019/2020

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ABSTRACT

Bovine tuberculosis (*Mycobacterium bovis*) and brucellosis (*Brucella abortus*) are endemic in bison (*Bison bison*) herds in and around Wood Buffalo National Park, and the adjacent Slave River Lowlands. In 1987, the Bison Control Area, and a surveillance program, was created to minimize the risk of disease transmission to the disease-free Mackenzie and Nahanni populations in the Northwest Territories by preventing bison from moving through or establishing herds within the area south of the Mackenzie River between the Trout and Buffalo Rivers. To keep this area free of bison, aerial surveys are flown to search for bison, and public participation by reporting any sightings or signs of bison is encouraged.

This program continued through 2016/2017 to 2019/2020 seasons with two annual survey flights.

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INTRODUCTION

The Bison Control Area (BCA) was established in 1987 to reduce the risk of contact between bison infected with bovine tuberculosis or brucellosis and disease-free bison in the Mackenzie, Nahanni and Hay-Zama (Alberta) populations. The two diseases are endemic in bison in the Slave River Lowlands and Wood Buffalo National Park (WBNP) (Figure 1). The BCA is intended to be a buffer zone between infected and uninfected populations to prevent the spread of disease. This zone encompasses over 39,800 km² bounded in the south by the Northwest Territories (NWT) border, in the north by the Mackenzie River and Great Slave Lake, in the west by the Trout River and in the east by the Buffalo River. All bison found within the BCA are assumed to be diseased and are removed and tested. The history of wood bison in the NWT and the disease status of bison populations in the NWT were further reviewed in previous annual reports on the Bison Control Area (BCA) (e.g. Sayine-Crawford et al. 2012, Greig and Cox 2012).

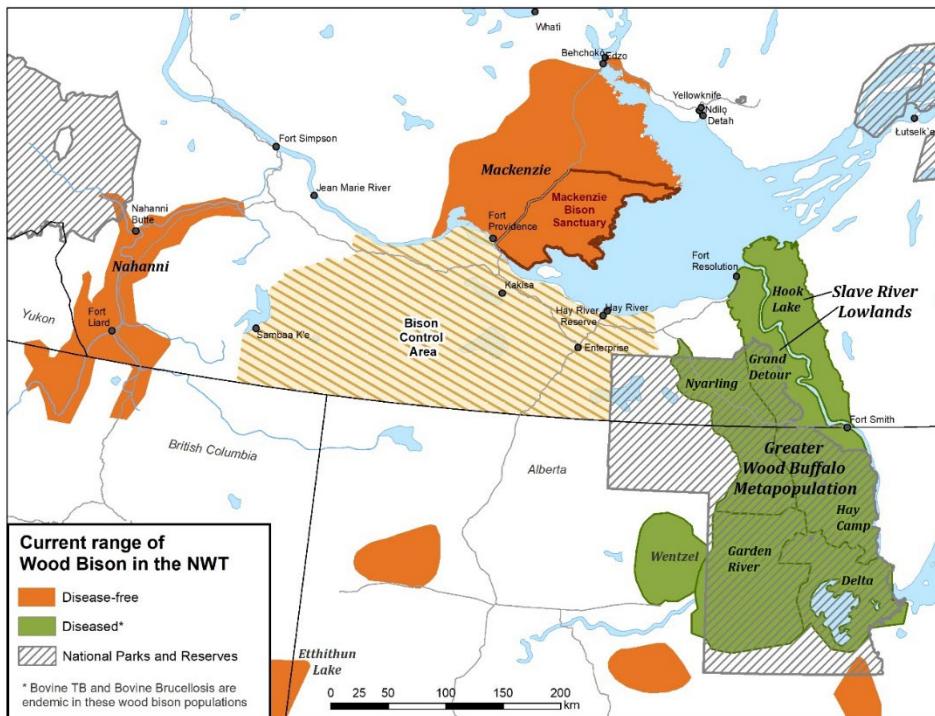


Figure 1. The current distribution of wood bison (*Bison bison athabascae*) in northern Canada.

Since 1993 the BCA program has been jointly funded by the Government of the Northwest Territories' Department of Environment and Climate Change (ECC) (formerly the Department of Environment and Natural Resources (ENR)) and the Government of Canada's Parks Canada Agency. Both governments realize the importance of maintaining healthy wood bison herds and promoting the growth of the species. The BCA program supports the

objectives of the national *Recovery Strategy for the Wood Bison (Bison bison athabascae) in Canada* and the *Recovery Strategy for Wood Bison (Bison bison athabaskan) in the Northwest Territories*.

The objectives of the BCA program are to prevent bison from moving between the Slave River Lowlands/WBNP and the Mackenzie, Nahanni and Hay-Zama populations by detecting and removing any bison that may come into the area. To achieve this objective, the goals of the program are:

- Conduct aerial surveillance of the BCA twice during the winter months;
- Investigate all reports of bison in the BCA;
- Maintain the BCA free of bison and prevent any herds from establishing within its limits;
- Increase public awareness about the program; and
- Confirm disease status of any bison found in the BCA.

BISON CONTROL AREA REVIEW

A review of the BCA program was conducted in 2016 to assess the effectiveness of the program and to identify any potential cost savings with recommendations taken into consideration for future BCA activities. The 2016/2017 surveillance season was the first year to implement the currently used survey area and methods. The recommendations for the survey methods from this review were to: (1) eliminate weekly winter shoreline patrols, (2) replace semi-comprehensive and comprehensive surveys with a revised aerial transect survey.

Surveillance efforts were modified beginning in 2016/2017 with the reduction of the aerial survey area and the removal of shoreline patrols.

Prior to 2016/2017, weekly winter shoreline patrols were conducted along the north and south shores of the Mackenzie River in an effort to detect bison crossing the river. The review recommended discontinuing shoreline patrols for three reasons: (1) there had been few bison using habitat immediately adjacent to the Mackenzie River since 2012/2013; (2) shoreline patrols had not detected crossing events although crossing events had been detected by local residents who are active on the river during the winter; and (3) to shift focus to surveillance of the eastern boundary of the BCA, i.e., where any bison moving into the BCA could be diseased.

Prior to 2016/2017, annual semi-comprehensive and comprehensive surveys were conducted within the boundaries of the BCA. The semi-comprehensive survey did gather observations, but its design did not provide consistent coverage of the survey area. The comprehensive survey was not consistent in transect spacing and alignment, so use of the data for other purposes was more difficult than a standard survey with fixed transect widths with parallel spacing. The review recommended replacing the semi-comprehensive and comprehensive surveys with a redesigned aerial survey with systematic coverage of Zone 1 and part of Zone 2 that would be conducted twice each winter. The new survey was designed to focus on the eastern boundary of the BCA to detect potentially diseased animals moving of WBNP as opposed to non-diseased animals moving south of the Mackenzie River.

METHODS

Survey methods were similar to those used in previous years (Gates et al. 1992, Williamson et al. 1995, Bohnet and Gates 1997, Nishi 2002, Boulanger et al. 2002, Bidwell et al. 2004, Campbell et al. 2004, Hartop et al. 2009) to ensure repeatability and comparability of wildlife sightings. The exception to this is that transect markers were not used on the windows or wings since the purpose of the BCA program is to determine presence/absence of bison and is not to conduct a population survey. Comprehensive surveys are no longer conducted in this program.

The BCA is stratified into three zones (Figure 2). Zone 1 is the area in which bison are most likely to be seen, since it is the section of the BCA that is nearest to both the Mackenzie population's range and WBNP. Therefore, the program focuses on this particular zone, with aerial surveys conducted twice a year. Zone 2 is a larger zone and part of this zone is incorporated into the annual aerial surveys (Figure 3). Surveillance of the remaining areas of Zone 1, 2 and 3 relies on reports from people living and travelling in the area instead of aerial surveys.

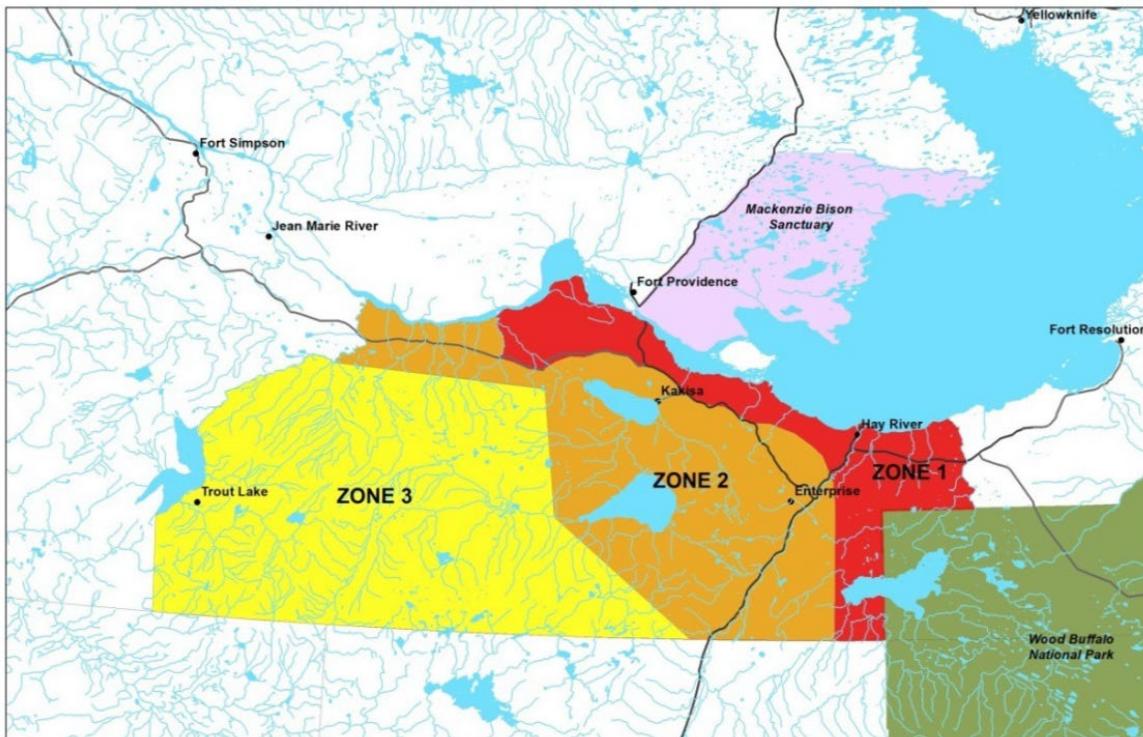


Figure 1. The Bison Control Area and its stratification into three zones.

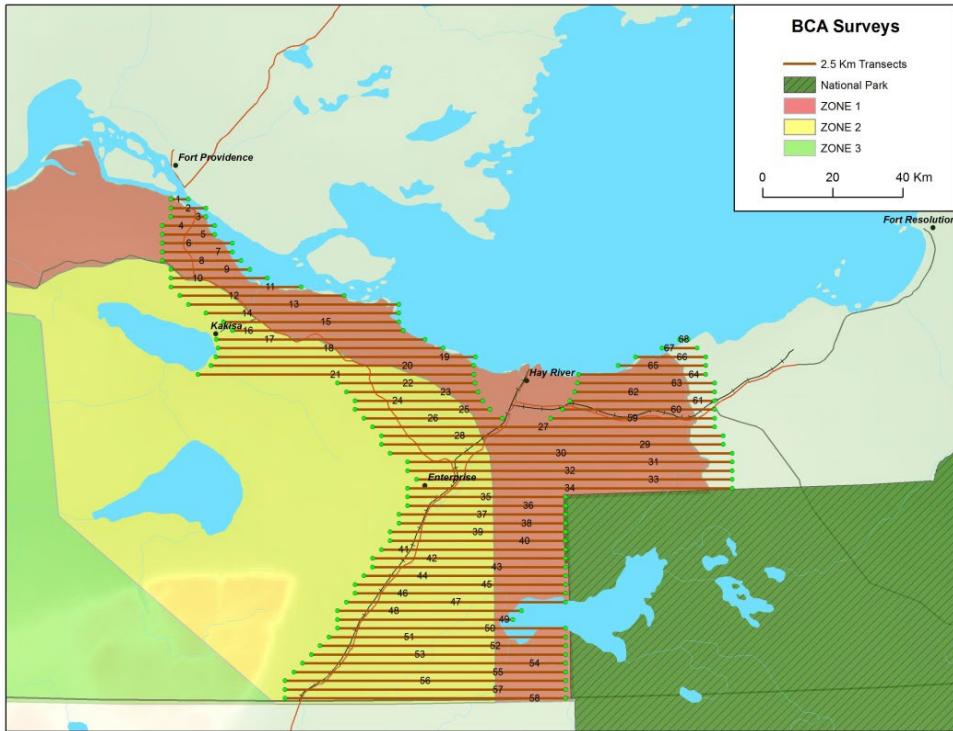


Figure 2. Transects for the two annual Bison Control Area aerial surveys.

Aerial surveillance is conducted during the winter months when bison and signs of their presence (feeding craters and tracks) are most visible. Also, the probability of bison moving through the BCA is potentially higher in the winter because bison may be more likely to walk across the frozen Mackenzie River than swim across it in the summer.

Two survey flights were completed between February 15 - March 18, 2021, using a Cessna 337 from Landa Aviation Ltd. The GIS Specialist from the ENR office in Fort Smith conducted both surveys along with local community members as observers.

All tracks and wildlife observed were documented and their location recorded. The aircraft circled all suspected bison tracks so observers could examine closer to determine the type of tracks. Data was recorded on a tablet with GPS capabilities using ArcGIS Survey123.

RESULTS

2016/2017

2016/2017 Bison Control Area Survey Results

Table 1. All recorded animal observations and tracks during the 2016/2017 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Moose Tracks | Moose | Caribou Tracks | Caribou | Wolf Tracks | Wolf | Kill Site |
|-------------|--------------|--------------|-----------|----------------|-----------|-------------|----------|-----------|
| Semi | 6-Feb-2017 | 42 | 6 | 33 | 9 | 11 | | |
| Semi | 7-Feb-2017 | 19 | 3 | 121 | 28 | 20 | | |
| Semi | 8-Feb-2017 | 15 | | 64 | 4 | 18 | | |
| Semi | 9-Feb-2017 | 16 | 5 | 30 | 3 | 26 | | |
| Semi | 10-Feb-2017 | 28 | 12 | 120 | 6 | 31 | 4 | |
| Semi | 11-Feb-2017 | 27 | 2 | 49 | 6 | 36 | | |
| Comp | 21-Mar-2017 | 103 | 4 | 15 | 10 | 136 | | |
| Comp | 23-Mar-2017 | 91 | 3 | 64 | 7 | 79 | | |
| Comp | 27-Mar-2017 | 79 | 3 | 90 | | 243 | | |
| Comp | 28-Mar-2017 | 2 | 2 | | | 17 | | |
| Comp | 31-Mar-2017 | 91 | 4 | 21 | 5 | 1 | 1 | |
| | Total | 513 | 44 | 607 | 78 | 618 | 5 | 0 |

Table 2. Survey duration, weather, and observation conditions for the 2016/2017 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Hours Flown | Temperature | Wind (Direction-knots) | Sky | Light | Intensity | Snow Cover | Days Since Last Snow |
|-------------|--------------|-------------|-------------|------------------------|---------------|--------|-----------|------------|----------------------|
| Semi | 6-Feb-2017 | 3.3 | -29.0 | WNW-6kts | Clear | Bright | High | Complete | |
| Semi | 7-Feb-2017 | 5.6 | -20.0 | NW-9kts | | | Medium | Complete | <12hr |
| Semi | 8-Feb-2017 | 6.4 | -20.0 | NA-5kts | Clear | Bright | High | Complete | 1 |
| Semi | 9-Feb-2017 | 6.4 | -18.0 | NA-5kts | Overcast | Bright | Medium | Complete | 2 |
| Semi | 10-Feb-2017 | 6.8 | -25.0 | NE-8kts | Clear | Bright | High | Complete | 3 |
| Semi | 11-Feb-2017 | 3.3 | NA | W-6kts | Clear | Bright | High | Complete | <12hr |
| Comp | 21-Mar-2017 | 5.9 | -16.0 | S-4kts | Partly cloudy | | | | |
| Comp | 23-Mar-2017 | 7.2 | -19.0 | ENE - 10kts | Few Clouds | | | | |
| Comp | 27-Mar-2017 | 7.1 | -11.0 | WNW - 8kts | Few Clouds | | | | |
| Comp | 28-Mar-2017 | 1.6 | -10.0 | ENE - 9kts | Clouds broken | | | | |
| Comp | 31-Mar-2017 | 8.4 | 1.0 | SSE - 10kts | Broken | | | | |
| | Total | 62.0 | | | | | | | |

2016/2017 Reports and Sightings

Table 3. All reported bison sightings in and near the Bison Control Area, 2016/2017.

| Report/Sighting Date | Details |
|----------------------|---|
| 13-Jan-2017 | Fort Providence RRO received a report of approximately five bison had been sighted on Highway 1, at a gravel pit near km 220. The site was investigated but it had snowed and no bison or tracks were located. On January 16, the site and highway between km 188 and km 248 were searched; no bison tracks were located. |
| 5-Mar-2017 | A member of the public reported a bison on the north side of Highway 1, west of the Redknife River, near km 306. The site was investigated, but no bison or bison tracks were found. |

2017/2018

2017/2018 Bison Control Area Survey Results

Table 4. All recorded animal observations and tracks during the 2017/2018 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Moose Tracks | Moose | Caribou Tracks | Caribou | Wolf Tracks | Wolf | Kill Site |
|-------------|--------------|--------------|-----------|----------------|-----------|-------------|----------|-----------|
| Semi | 5-Feb-2018 | 5 | | | | 2 | | |
| Semi | 6-Feb-2018 | | | | | | | |
| Semi | 12-Feb-2018 | 5 | | | 5 | | | |
| Semi | 13-Feb-2018 | 19 | | 92 | 9 | 60 | 1 | |
| Semi | 14-Feb-2018 | 9 | 2 | | 15 | 8 | | |
| Semi | 15-Feb-2018 | 101 | 7 | 24 | | 84 | | |
| Semi | 16-Feb-2018 | 8 | 2 | 25 | 5 | 14 | | |
| Comp | 26-Mar-2018 | 28 | | 49 | 6 | 19 | | |
| Comp | 27-Mar-2018 | 73 | | 119 | 5 | 305 | | |
| Comp | 28-Mar-2018 | 163 | 1 | 23 | | 364 | | |
| Comp | 29-Mar-2018 | 336 | 2 | 19 | | 358 | 5 | |
| | Total | 747 | 14 | 351 | 45 | 1214 | 6 | 0 |

Table 5. Survey duration, weather and observation conditions for the 2017/2018 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Hours Flown | Temperature | Wind (Direction-knots) | Sky | Light | Intensity | Snow Cover | Days Since Last Snow |
|--------------|-------------|-------------|-------------|------------------------|-----------|--------|-----------|------------|----------------------|
| Semi | 5-Feb-2018 | 2.9 | -17.0 | SW-2kts | Overcast | Flat | | Complete | 2 |
| Semi | 6-Feb-2018 | 1.2 | -20.0 | NA-3kts | Overcast | Flat | | Complete | 3 |
| Semi | 12-Feb-2018 | 4.0 | -12.0 | SW-7kts | Overcast | Flat | | Complete | 2 |
| Semi | 13-Feb-2018 | 8.1 | -14.0 | NNW-3kts | Overcast | Flat | | Complete | 3 |
| Semi | 14-Feb-2018 | 3.4 | -25.0 | SW-10kts | Clear | Bright | | Complete | 4 |
| Semi | 15-Feb-2018 | 7.0 | -28.0 | SW-6kts | Clear | Bright | | Complete | 5 |
| Semi | 16-Feb-2018 | 3.0 | -28.0 | WSW-2kts | Overcast | Flat | | Complete | 6 |
| Comp | 26-Mar-2018 | 3.9 | -22.0 | NW-6 kts | clear | Bright | | Complete | 2 |
| Comp | 27-Mar-2018 | 7.4 | -28.0 | S-2kts | Clear | Bright | | Complete | 3 |
| Comp | 28-Mar-2018 | 7.2 | -28.0 | NE-3kts | Clear | Bright | | Complete | 4 |
| Comp | 29-Mar-2018 | 8.7 | -33.0 | NA | Scattered | Bright | | Complete | 5 |
| Total | | 56.7 | | | | | | | |

2017/2018 Reports and Sightings

Table 6. All reported bison sightings in and near the Bison Control Area, 2017/2018.

| Report/Sighting Date | Details |
|----------------------|--|
| 6-Dec-2017 | Fort Providence RRO received a report from hunters of five to six bison on the old winter road around km 210 on Highway 1 (Near the Highway 3 junction). No follow up investigation occurred. |
| 7-Dec-2017 | A member of the public reported a bison next to the road near Paradise Gardens (Highway 2, near Hay River), just as it was getting dark (approx. 4 pm). It was identified as a two-year old bull, alone traveling north on the west side of Highway 2. The report was investigated but no tracks or animals were located. Another investigation by the Hay River RRO determined the sighting was of a domestic cow from a nearby property. |

2018/2019

2018/2019 Bison Control Area Survey Results

Table 7. All recorded animal observations and tracks during the 2018/2019 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Moose Tracks | Moose | Caribou Tracks | Caribou | Wolf Tracks | Wolf | Kill Site |
|-------------|--------------|--------------|-----------|----------------|-----------|-------------|----------|-----------|
| Semi | 28-Jan-2019 | 75 | 6 | 15 | | 9 | | |
| Semi | 29-Jan-2019 | 48 | 2 | 93 | 12 | 24 | | |
| Semi | 30-Jan-2019 | 12 | | 10 | 4 | 5 | | |
| Semi | 31-Jan-2019 | 125 | 12 | 40 | 18 | 14 | | |
| Semi | 12-Feb-2019 | 24 | 5 | 12 | | 9 | | 2 |
| Comp | 19-Mar-2019 | 31 | | 1 | | 3 | | |
| Comp | 20-Mar-2019 | 8 | | 27 | | | | |
| Comp | 21-Mar-2019 | 2 | | 42 | | | | |
| Comp | 22-Mar-2019 | 9 | | 7 | | | | |
| | Total | 334 | 25 | 247 | 34 | 64 | 0 | 2 |

Table 8. Survey duration, weather, and observation conditions for the 2018/2019 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Hours Flown | Temperature | Wind (Direction-knots) | Sky | Light | Intensity | Snow Cover | Days Since Last Snow |
|-------------|--------------|-------------|-------------|------------------------|-----------|--------|-----------|------------------------|----------------------|
| Semi | 28-Jan-2019 | 2.7 | -27.0 | ENE-5kts | Clear | Bright | | Snow Cover | 9 |
| Semi | 29-Jan-2019 | 7.4 | -21.0 | SE-4kts | Scattered | Flat | | Complete | 10 |
| Semi | 30-Jan-2019 | 3.2 | -18.0 | WNW-8kts | Overcast | Flat | | Complete | 0 |
| Semi | 31-Jan-2019 | 7.4 | -23.0 | WNW-9kts | Broken | Bright | | Complete | 1 |
| Semi | 12-Feb-2019 | 3.7 | -19.0 | S-4kts | Broken | Medium | | Complete | 12 |
| Semi | 19-Mar-2019 | 3.3 | 10.0 | WSW-5kts | Clear | Bright | | Complete | |
| Semi | 20-Mar-2019 | 8.1 | 3.0 | WSW-2kts | Clear | Bright | | Low vegetation showing | |
| Comp | 21-Mar-2019 | 7.8 | 10.0 | ESE-3kts | Scattered | Bright | | Low vegetation showing | |
| Comp | 22-Mar-2019 | 7.1 | 4.0 | NW-4kts | Scattered | Bright | | Bare ground showing | |
| | Total | 50.7 | | | | | | | |

2018/2019 Bison Control Area Reports and Sightings

There were no reports or sightings of bison within or near the BCA during the 2018/2019 season.

2019/2020

2019/2020 Bison Control Area Survey Results

Table 9. All recorded animal observations and tracks during the 2019/2020 Bison Control Area surveys.

| Survey # | Date | Moose Tracks | Moose | Caribou Tracks | Caribou | Wolf Tracks | Wolf | Kill Site |
|--------------|-------------|--------------|-----------|----------------|-----------|-------------|----------|-----------|
| 1 | 3-Feb-2020 | 25 | 4 | 2 | 19 | 9 | | |
| 1 | 4-Feb-2020 | 101 | 6 | 33 | 7 | 14 | | |
| 1 | 11-Feb-2020 | 24 | 1 | 74 | 7 | 13 | | |
| 1 | 12-Feb-2020 | 67 | 12 | 70 | 4 | 47 | | |
| 2 | 9-Mar-2020 | 91 | | 95 | | 70 | | |
| 2 | 10-Mar-2020 | 87 | 5 | 188 | 18 | 14 | | |
| 2 | 11-Mar-2020 | 42 | | 44 | | 29 | | |
| 2 | 13-Mar-2020 | 229 | 6 | 94 | | 104 | | |
| Total | | 666 | 34 | 600 | 55 | 300 | 0 | 0 |

Table 10. Survey duration, weather, and observation conditions for the 2019/2020 Bison Control Area surveys. Survey types are titled 'semi' for semi-comprehensive and 'comp' for comprehensive.

| Survey Type | Date | Hours Flow n | Temperature | Wind (Direction -knots) | Sky | Light | Intensity | Snow Cover | Days Since Last Snow |
|--------------|-------------|--------------|-------------|-------------------------|--------------------|--------|-----------|------------|----------------------|
| Semi | 3-Feb-2020 | 2.9 | -22.0 | S-13kts | Broken | Bright | Medium | Complete | 4 |
| Semi | 4-Feb-2020 | 5.5 | -33.0 | E-9kts | Clear | Bright | High | Complete | 5 |
| Semi | 11-Feb-2020 | 3.2 | -32.0 | NNE-3kts | Scattered | Bright | High | Complete | 1 |
| Semi | 12-Feb-2020 | 4 | -29.0 | SSE-5kts | Clear | Bright | High | Complete | 2 |
| Comp | 9-Mar-2020 | 4.2 | -6.0 | S-4kts | Clear | Bright | High | Complete | 3 |
| Comp | 10-Mar-2020 | 7.4 | -11.0 | NNE-NA | Partially Obscured | Bright | Medium | Complete | 4 |
| Comp | 11-Mar-2020 | 3.0 | -13.0 | NNW-6kts | Scattered | Bright | Low | Complete | 5 |
| Comp | 13-Mar-2020 | 9.2 | -21.0 | Calm | Partially Obscured | Bright | High | Complete | 7 |
| Total | | 39.4 | | | | | | | |

2019/2020 Bison Control Area Reports and Sightings

There were no reports or sightings of bison within or near the BCA during the 2019/2020 season.

PUBLIC AWARENESS

During the 2018/2019 and 2019/2020 seasons public awareness actions taken were an advertisement (Figure 4) in the 2019 and 2020 NWT Explorers' Guide and 2020 Dehcho Visitor's Guide.

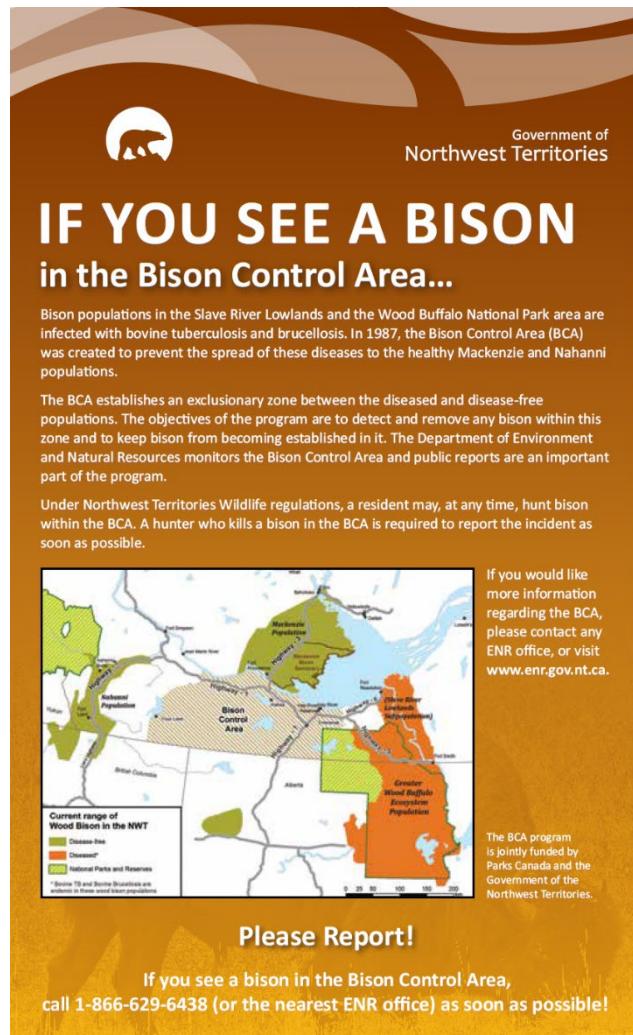


Figure 3. Advertisement published in the 2020 NWT Explorers' Guide.

ACKNOWLEDGEMENTS

Indigenous governments and Indigenous organizations whose traditional territories overlap with the Bison Control Area (BCA) are engaged annually regarding the survey flights. We are thankful for their support and participation.

We appreciate the support for this program provided by our partner, Wood Buffalo National Park—Parks Canada Agency.

Several people were integral to the BCA program from the 2016/2017 to 2019/2020 season. Karl Cox, Madison Hurst, and Dallas Phillips led survey flights. Allicia Kelly, Ashley McLaren and Terry Armstrong coordinated aircraft procurement and provided logistic support. Local Renewable Resource Officers are the eyes and ears in communities, and take reports and investigate any sightings of bison within the BCA. Thank you to Jerry Hordal and Edward Landry.

Many thanks also go to Landa Aviation Ltd. and Hoarfrost Huskies Ltd. and their skilled pilots who flew the survey: Dave Olesen, Alexander Luckham, BJ Caron, and Darcy King.

Numerous community observers were indispensable, and we thank all of them for assisting on our surveillance flights: Irene Graham, Peter Lesage, Dwayne Klause, Suzanne Boucher, Dalton Simba, Edward Buggins, John Martel, Hawkins Tambour, Kandice Thomas, Ira Ross, Garrett Flaherty, Dustin Beck and Lyle Froelich.

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APPENDIX A: SUMMARY OF SURVEILLANCE ACTIVITIES AND REMOVALS OF BISON FROM THE BISON CONTROL AREA (1988/1989 – 2019/2020)

| Year | Shoreline Patrols | Semi-Comprehensive Surveys | Comprehensive Surveys | Hours Flown | Snowmobile Ground Patrols | Bison Removals |
|------------------|---------------------|----------------------------|-----------------------|-------------|---------------------------|----------------|
| 1988/1989 | 1 | | | | | |
| 1989/1990 | 2 | | | | | |
| 1990/1991 | 2 | | | | | |
| 1991/1992 | | 7 | | | | |
| 1992/1993 | | | 3 | | | 9 ^a |
| 1993/1994 | 14 ^b | | 1 | | 23 | |
| 1994/1995 | 10(26) ^c | 6(94) | 1(34) | 153 | 33 | 2 ^d |
| 1995/1996 | 11(35) | 3(48) | 1(41) | 123 | | 3 ^e |
| 1996/1997 | 21(62) | 3(45) | 1(46) | 153 | | |
| 1997/1998 | 14(43) | 3(46) | 1(48) | 137 | | |
| 1998/1999 | 14(43) | 2(30) | 1(45) | 117 | | |
| 1999/2000 | 14(42) | 2(28) | 1(46) | 115 | | |
| 2000/2001 | 13(40) | 2(30) | 1(50) | 120 | | |
| 2001/2002 | 14(42) | 2(29) | 1(42) | 113 | | |
| 2002/2003 | 11(25) | 2(22) | 1(40) | 87 | | |
| 2003/2004 | 13(31) | 1(11) | 1(37) | 78 | | |
| 2004/2005 | 12(29) | 1(14) | 1(33) | 76 | | |
| 2005/2006 | 11(23) | 1(14) | 1(36) | 88 | | |
| 2006/2007 | 12(38) | 1(19) | 1(36) | 93 | | |
| 2007/2008 | 13(40) | 1(15) | 1(33) | 88 | | |
| 2008/2009 | 11(33) | 1(15) | 1(30) | 78 | | |
| 2009/2010 | 9(27) | 1(13) | 1(13) | 53 | | |

| Year | Shoreline Patrols | Semi-Comprehensive Surveys | Comprehensive Surveys | Hours Flown | Snow-mobile Ground Patrols | Bison Removals |
|-----------|-------------------|----------------------------|-----------------------|-------------|----------------------------|----------------|
| 2010/2011 | 11(30) | 1(17) | 1(27) | 74 | | 1 ^f |
| 2011/2012 | 10(25) | 1(16) | 1(23) | 64 | | |
| 2012/2013 | 2(27) | 1(36) | 1(18) | 81 | 1 ^g | |
| 2013/2014 | 14(49) | 1(13) | 1(30) | 92 | | 1 ^h |
| 2014/2015 | 10(33) | 1(12) | 1(34) | 79 | | |
| 2015/2016 | 8(30) | 1(12) | 1(30) | 72 | | |
| 2016/2017 | | 2(62) | | 62 | | |
| 2017/2018 | | 2(57) | | 57 | | |
| 2018/2019 | | 2(51) | | 51 | | |
| 2019/2020 | | 2(39) | | 39 | | |

^a 17 May 1992: eight bulls shot near Point de Roche. 31 May 1992: one bull shot near Point de Roche (no lymph nodes collected). Serological testing for *Brucella* was negative for all nine bulls, no lesions consistent with tuberculosis observed on gross pathology or histopathology.

^b Four patrols covered the Hay River area and extended inland to the northwest park boundary.

^c Numbers in brackets represent survey hours (rounded off to the nearest hour).

^d 13 October 1994: prior to the surveillance season beginning, one bison shot by hunter near the eastern boundary of the BCA. Blood and tissue samples collected but no evidence of brucellosis or tuberculosis. 8 March 1995, one cow shot by hunter along south shore of Mackenzie River. Cow had likely been wounded by wolves. Blood serum and retropharyngeal lymph nodes collected.

^e 19 March 1996: three cows killed by hunter on the south shore of Mackenzie River. Blood serum (n=2) and retropharyngeal lymph nodes (n=3) collected. No serological reactors to brucella, and lymphatic tissue normal on gross examination.

^f 5 January 2011: one injured young of the year female was killed by a fisherman north of Hay River on Great Slave Lake (coordinates: 60° 59' 17.1"N, 115° 51' 05.5"W). It was collected on January 12th and brought back to Fort Smith. A necropsy was performed, and wounds were found on the front left shoulder and the hindquarters and appeared to be

from a wolf attack. Retropharyngeal, submandibular, prefemoral, prescapular, popliteal and bronchial lymph nodes and tonsils were collected for testing.

^g Snowmobile patrol conducted from Fort Providence to investigate bison sighting. No bison observed.

^h 1 January 2014: ENR RRO in Fort Providence received a report of a bison sighting near Axe Handle Creek on Highway 1. On January 2, the RRO found bison tracks in the area. The bison had been feeding in the low areas and tracks went into a gravel pit. On January 6 at 16:30, an RRO located and destroyed the bison in the gravel pit (61.091683N, -118.709583W); the bison had been there for some time. Two local hunters assisted in tracking and skinning the young male (B2) in healthy condition.